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EXAMINER

SCHEIBEL, ROBERT C

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Please find below and/or attached an Office communication concerning this application or proceeding.



### **DETAILED ACTION**

- This action acknowledges the receipt of Applicant's Amendment filed on 1/19/2006.
- Claims 1, 9, 17, and 27 have been amended.
- Claims 1-35 are currently pending.

### ***Response to Arguments***

1. Applicant's arguments with respect to the rejection of claims 1-2, 4, 8-11, 16-19, 26-29, and 34-35 under 35 U.S.C. 102(a) have been considered but are moot in view of the new grounds of rejection. The 3GPP2 reference does not disclose expressly the newly added limitations of claims 1, 9, 17, and 27. However, the claims are rejected under 35 U.S.C. 103(a) in view of 3GPP2 and the newly cited reference U.S. Patent 5,883,888 to St-Pierre as described in detail below.

### ***Claim Rejections - 35 USC § 103***

2. Claims 1-2, 4, 8-11, 16-19, 26-29, and 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over 3<sup>rd</sup> Generation Partnership Project 2 "3GPP2", C.S0005-0 Version 1.0 ("3GPP2" hereinafter) in view of U.S. Patent 5,883,888 to St-Pierre.
3. Regarding claim 1, 3GPP2 discloses in section 3.7.3.3.2.24 the step of generating a channel assignment message (the Supplemental Channel Assignment Message described in the table, specifically when used to indicate a forward channel assignment) including a start time for channel assignment (FOR\_START\_TIME), a duration of the channel assignment (FOR\_DURATION). 3GPP2 also discloses the step of transmitting the channel assignment

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message to a mobile station on an existing traffic channel, without receiving a channel assignment request message from the mobile station in the forward supplemental channel assignment message (see pages B-36 to B-38 which show (in the second bullet on the base station side of part 3 of 3) a supplemental channel assignment message sent without a request message from the mobile station (forward supplemental channel initiated from the base station side)).

Similarly, regarding claim 9, 3GPP2 discloses in section 3.7.3.3.2.24 and in figures 2.6.6.2.5.1.1-1 and 2.6.6.2.5.1.1-2 the step of receiving a plurality of channel assignment messages successively. The fields of the channel assignment message (start time (FOR\_START\_TIME), a duration (FOR\_DURATION), and a channel identifier for channel identification (BASE\_CODE\_CHAN)) are disclosed in section 3.7.3.3.2.24. The limitation of receiving a plurality of channel assignment messages is disclosed in figures 2.6.6.2.5.1.1-1 and 2.6.6.2.5.1.1-2 on page 2-320. 3GPP2 also discloses the step of transmitting the channel assignment message to a mobile station on an existing traffic channel, without the base station receiving a channel assignment request message (see pages B-36 to B-38 which show (in the second bullet on the base station side of part 3 of 3) a supplemental channel assignment message sent without a request message from the mobile station (forward supplemental channel initiated from the base station side)). The step of storing the received channel assignment messages in a memory according to the start times and durations of the channel assignment messages is disclosed in the section from line 4 on page 2-288 through line 40 on page 2-292; this section describes that the various message fields are to be stored in the mobile station. Figures

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2.6.6.2.5.1.1-1 and 2.6.6.2.5.1.1-2 also disclose the limitation that data communication is conducted on channels assigned by the channel assignment messages.

Similarly, regarding claim 17, 3GPP2 discloses in section 3.7.3.3.2.24 and in figure 2.6.6.2.5.1.1-1 and 2.6.6.2.5.1.1-2 the step of receiving a plurality of channel assignment messages successively. The fields of the channel assignment message (start time (FOR\_START\_TIME), a duration (FOR\_DURATION), and a channel identifier for channel identification (BASE\_CODE\_CHAN)) are disclosed in section 3.7.3.3.2.24. The limitation of receiving a plurality of channel assignment messages is disclosed in figures 2.6.6.2.5.1.1-1 and 2.6.6.2.5.1.1-2 on page 2-320. 3GPP2 also discloses the step of transmitting the channel assignment message to a mobile station on an existing traffic channel, without the base station receiving a channel assignment request message (see pages B-36 to B-38 which show (in the second bullet on the base station side of part 3 of 3) a supplemental channel assignment message sent without a request message from the mobile station (forward supplemental channel initiated from the base station side)). The step of storing the received channel assignment messages in a memory according to the start times and durations of the channel assignment messages is disclosed in the section from line 4 on page 2-288 through line 40 on page 2-292; this section describes that the various message fields are to be stored in the mobile station. The limitation of conducting data communication on a channel corresponding to the channel identifier of a first read channel assignment message for a period between the start time and the end of the duration set in the read channel assignment message is disclosed in the "Assignment 1" message and the associated channel usage in Figure 2.6.6.2.5.1.1-1 (b). The limitation of then on a channel corresponding to the channel identifier of a next read channel assignment message for a period

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between the start time and the end of the duration set in the next channel assignment message, the start time of the next channel assignment message being set to or after the end of the data communication according to the first read channel assignment message is disclosed in the “Assignment 2” message and the associated channel usage in Figure 2.6.6.2.5.1.1-1 (b). This figure clearly shows that the start time of the next channel assignment message is after the end of the data communication according to the first channel assignment message.

Similarly, regarding claim 27, 3GPP2 discloses the limitation of a receiver for receiving a plurality of channel assignment messages successively from a base station on an existing traffic channel, each of the channel assignment messages having the fields of a start time, a duration, and a channel identifier for channel identification in section 3.7.3.3.2.24 and in figure 2.6.6.2.5.1.1-1 and 2.6.6.2.5.1.1-2 as described above in claims 9 and 17. The receiver is inherent to a system receiving channel assignment messages as the means of receiving these messages. 3GPP2 discloses the limitation of a memory having a scheduling table for storing the received channel assignment messages and the limitation of a controller for storing the received channel assignment message in the scheduling table of the memory according to the durations of the channel assignment messages are disclosed in the section from line 4 on page 2-288 through line 40 on page 2-292. This section describes that the various message fields are to be stored in the mobile station; this information must be stored in some sort of memory. Further, 3GPP2 discloses the limitation of the controller sequentially reading the stored channel assignment messages, and assigning channels based on the channel identifiers of the read channel assignment messages, for data communication in figures 2.6.6.2.5.1.1-1 and 2.6.6.2.5.1.1-2. These figures show (a) that the channel assignment messages are processed after they are

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received and (b) that they are processed in the order they are received (indicating that they are stored for later processing and sequentially read). The use of the channel based on the respective assignment messages also indicates that channels are assigned based on the channel identifiers of the read channel messages.

However, 3GPP2 does not disclose expressly the limitation of claims 1, 9, 17, and 27 of the channel assignment message including a sequence number for identifying two or more channel assignment messages or the limitation that the sequence number identifies a sequential order for each of a plurality of channel assignment messages. St-Pierre discloses the limitation of using a sequence number for identifying two or more messages in lines 37-54 of column 5. The duplicate frames (two or more messages) are each identified by the same sequence number. Further, St-Pierre indicates in lines 42-44 of column 5 that the sequence numbers can be generated by incrementing, thus indicating a sequential order of reach of a plurality of messages. 3GPP2 and St-Pierre are analogous art because they are from the same field of endeavor of wireless communications. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify 3GPP2 by adding sequence numbers to the channel assignment messages. The motivation for doing so would have been to identify duplicates for the purposes of soft handover as suggested by St-Pierre in the abstract. Therefore, it would have been obvious to combine St-Pierre with 3GPP2 for the benefit of assisting in soft handover to obtain the invention as specified in claim 1, 9, 17, and 27.

Regarding claims **2, 10, 18, and 28**, 3GPP2 discloses the step of deleting a previous channel assignment message in lines 4-7 of page 2-320 and figure 2.6.6.2.5.1.1-2. The second message replaces the first, thus effectively deleting it.

Regarding claims **4, 11, 19, and 29**, 3GPP2 discloses the step of updating a previous channel assignment message in figure 2.6.6.2.5.1.1-1 (a). The first channel assignment is updated by the second channel assignment to extend the duration of the first channel assignment.

Regarding claims **8, 16, 26, and 35**, 3GPP2 discloses the limitation that the channel assignment message(s) are supplemental channel assignment message(s) in the title of section 3.7.3.3.2.24 “Supplemental Channel Assignment Message”.

Regarding claim **34**, 3GPP2 discloses the limitation of conducting data communication on a channel corresponding to the channel identifier of a first read channel assignment message for a period between the start time and the end of the duration set in the read channel assignment message is disclosed in the “Assignment 1” message and the associated channel usage in Figure 2.6.6.2.5.1.1-1 (b). The limitation of then on a channel corresponding to the channel identifier of a next read channel assignment message for a period between the start time and the end of the duration set in the next channel assignment message, the start time of the next channel assignment message being set to or after the end of the data communication according to the first read channel assignment message is disclosed in the “Assignment 2” message and the associated channel usage in Figure 2.6.6.2.5.1.1-1 (b). This figure clearly shows that the start time of the next channel assignment message is after the end of the data communication according to the first channel assignment message.

4. Claim **3** is rejected under 35 U.S.C. 103(a) as being unpatentable over 3<sup>rd</sup> Generation Partnership Project 2 “3GPP2”, C.S0005-0 Version 1.0 (“3GPP2” hereinafter) in view of U.S. Patent 5,883,888 to St-Pierre in further view of U.S. Patent 4,612,637 to Davis et al.



The combination of 3GPP2 and St-Pierre discloses all the limitations of parent claim 2 as discussed in the rejection under 35 U.S.C. 102(a) above. The combination of 3GPP2 and St-Pierre does not disclose expressly the limitation of setting the message duration of the channel assignment message to 0 of claim 3. Davis discloses the limitation of deleting (canceling) an assignment message by setting the duration field to zero in lines 7-10 of column 6. Davis sets the Aloha parameter to zero to cancel an rqs message. In lines 41-43 of column 4, Davis indicates that the Aloha message is the number of available time slots, which is equivalent to the available message duration. 3GPP2, as modified above, and Davis are analogous art because they are from the same field of endeavor of channel assignment for data communications. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify 3GPP2, as modified above, to use a zero duration to delete/cancel a previous channel assignment. The motivation for doing so would have been to prevent collisions among users as suggested by Davis in lines 9-10 of column 6 (“prevents other users from transmitting while the called party is transmitting RDY”). Therefore, it would have been obvious to combine Davis with 3GPP2, as modified above, for the benefit of preventing collisions to obtain the invention as specified in claim 3.

5. Claims 5, 7, 12, 14, 20, 22, 30, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over 3<sup>rd</sup> Generation Partnership Project 2 “3GPP2”, C.S0005-0 Version 1.0 (“3GPP2” hereinafter) in view of U.S. Patent 5,883,888 to St-Pierre in further view of U.S. Patent 6,011,806 to Herring.

Regarding claims 5 and 7, the combination of 3GPP2 and St-Pierre discloses all the limitations of parent claim 4 as discussed in the rejection under 35 U.S.C. 102(a) above. The combination of 3GPP2 and St-Pierre does not disclose expressly the limitations of claims 5 and 7 of setting the sequence number according to the previous channel assignment message when updating a channel assignment. Herring discloses the limitations of claim 5 of setting the sequence number of the channel assignment message according to the sequence number of the previous channel assignment message in lines 9-13 of column 9. According to the broad language of the current claims, the duplication of the command is considered to update the command and thus disclose the limitation of claim 5. Since the transmitter assumes that the original command was not received, the duplication of this command effectively updates the receiver. Similarly, the limitation of claim 7 that the sequence number of the updating channel assignment message is set to be equal to the sequence number of the previous channel assignment message is disclosed by Herring. 3GPP2, as modified above, and Herring are analogous art because they are from the same field of endeavor of data communications. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify 3GPP2, as modified above, to use the same sequence number as in the previous channel assignment message when updating a channel assignment. The motivation for doing so would have been to uniquely identify which channel assignment is being updated. Therefore, it would have been obvious to combine Herring with 3GPP2, as modified above, for the benefit of identifying the message to be updated to obtain the invention as specified in claims 5 and 7.

Regarding claims 12, 14, 20, 22, 30, and 32, the combination of 3GPP2 and St-Pierre discloses all the limitations of parent claims 10-11, 18-19, and 28-29 as discussed in the rejection

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under 35 U.S.C. 102(a) above. The combination of 3GPP2 and St-Pierre does not disclose expressly the limitations of claims 12, 14, 20, 22, 30, and 32. Herring discloses the limitation of determining that a message was already received or stored in memory if a message with an identical sequence number is received from line 67 of column 3 through line 2 of column 4.

3GPP2, as modified above, and Herring are analogous art because they are from the same field of endeavor of data communications. At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the sequence number to determine if a channel assignment has already been received. The motivation for doing so would have been to identify when duplicate information is being received. Therefore, it would have been obvious to combine Herring with 3GPP2, as modified above, for the benefit of detecting duplicate information to obtain the invention as specified in claims 12, 14, 20, 22, 30, and 32.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over 3<sup>rd</sup> Generation Partnership Project 2 “3GPP2”, C.S0005-0 Version 1.0 (“3GPP2” hereinafter) in view of U.S. Patent 5,883,888 to St-Pierre in further view of U.S. Patent 4,612,637 to Davis et al in further view of U.S. Patent 6,011,806 to Herring.

Regarding claim 6, the combination of 3GPP2 and St-Pierre and Davis discloses all the limitations of parent claim 3 as discussed above. The combination of 3GPP2 and St-Pierre and Davis does not disclose expressly the limitation of claim 6. However, it is well known in the art that a sequence number is used to identify a previous message. For example, consider Herring, which discloses the limitation of setting the sequence number to be the same as that of the previous sequence number in lines 9-13 of column 9. 3GPP2, as modified above, and Herring

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are analogous art because they are from the same field of endeavor of data communications. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify 3GPP2, as modified above, to use the same sequence number as in the previous channel assignment message when deleting a channel assignment. The motivation for doing so would have been to uniquely identify which channel assignment is being deleted. Therefore, it would have been obvious to combine Herring with 3GPP2, as modified above, for the benefit of identifying the message to be deleted to obtain the invention as specified in claim 6.

7. Claims **13, 15, 21, 23, 31, and 33** are rejected under 35 U.S.C. 103(a) as being unpatentable over 3<sup>rd</sup> Generation Partnership Project 2 “3GPP2”, C.S0005-0 Version 1.0 (“3GPP2” hereinafter) in view of U.S. Patent 5,883,888 to St-Pierre in further view of U.S. Patent 6,011,806 to Herring in further view of U.S. Patent 4,612,637 to Davis et al.

Regarding claims 13, 15, 21, 23, 31, and 33, 3GPP2, modified by Herring above, discloses all the limitations of parent claims 12, 14, 20, 22, 30, and 32 as described in the rejection above. 3GPP2, modified, does not disclose expressly the limitation of using the value of the duration field to distinguish whether to delete or update the channel assignment information as disclosed in claims 13, 15, 21, 23, 31, and 33. Davis discloses the limitation of deleting (canceling) an assignment message by setting the duration field to zero in lines 7-10 of column 6. Davis sets the Aloha parameter to zero to cancel an rqs message. In lines 41-43 of column 4, Davis indicates that the Aloha message is the number of available time slots, which is equivalent to the available message duration. It similarly follows that a non-zero duration would indicate that the message was simply updating (duplicating) the original message as disclosed by

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Herring and discussed in the rejection of the parent claims above. 3GPP2, as modified above, and Davis are analogous art because they are from the same field of endeavor of channel assignment for data communications. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify 3GPP2, as modified above, to use a zero duration to delete/cancel a previous channel assignment. The motivation for doing so would have been to prevent collisions among users as suggested by Davis in lines 9-10 of column 6 (“prevents other users from transmitting while the called party is transmitting RDY”). Therefore, it would have been obvious to combine Davis with 3GPP2, as modified above, for the benefit of preventing collisions to obtain the invention as specified in claims 13, 15, 21, 23, 31, and 33.

#### *Allowable Subject Matter*

8. Claims **24-25** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### *Conclusion*

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert C. Scheibel whose telephone number is 571-272-3169. The examiner can normally be reached on Monday and Thursday from 6:30-5:00 Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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*RC* 2-27-06

Robert C. Scheibel  
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